

REMARKS

After entry of the amendments above, claims 19, 22-24, 30 and 34-60 will be pending in this application. The result of these amendments is to cancel all of the rejected claims and to rewrite objected-to claims 19 and 30 in independent form. The new claims, claims 37-41 have been provided to depend from allowed claim 22 and have the same features as those of canceled claims 17, 19-21, and 25. New claims 42-48 depend from allowed claim 34 and have the same features as those of canceled claims 27-33.

New claims 49-60 are directed to further features of the claimed invention and are allowable essentially for the reasons that the allowed allowable claims are allowable. As the Examiner will note, new independent claim 49 is similar to allowed claim 1 in applicant's parent application, which is now U.S. Patent No. 6,377,597. Claim 49 differs from claim 1 in that it does not set forth any limitations regarding the thickness of the quantum/barrier layer and requires a ridge structure and a small p-cladding layer that forms at least a part of the ridge structure.

New claims 50-58 are dependent from new claim 49 and recite features that are similar to or the same as claims 23, 24, 37-41, and 43. The Examiner should also note that claim 57 is similar to, but broader than, new claim 51.

New independent claim 59 is similar to, but broader than allowed claim 22, in that new claim 59 omits the semiconductor substraight and the plainer portions of the p-cladding layer set forth in claim 22. Finally, new independent claim 60 corresponds to allowed claim 34 in the same way that new claim 59 corresponds to allowed claim 22.

For the foregoing reasons, the claims now pending in this application after entry of the amendments above are in condition for allowance. In order to make the record clear, applicant wishes to observe that neither Nakamura nor Larson discloses or suggests controlling the number of quantum well layers, the thicknesses of the quantum well layers or the thicknesses of the barrier layers as set forth in the claims of this application as amended. Further, neither Nakamura nor

Larson discloses or suggests providing a uniform distribution of electrons and holes in one or more quantum well layers of InGaN active layer. Finally, neither of the references teaches the combination of the ridge structure provided with at least p-cladding layer and the active layer set forth in claim 49, or the other features of the new claims.

Although applicant appreciates the Examiner's indication of allowable subject matter, applicant is not entirely clear regarding the applicability of the stated reasons for allowance to the claims. Although the Examiner states that claims 22-24 and 34-36 are allowed because the prior art fails to disclose or suggest that one or more of the barrier layers has a layer thickness of 4 nm or less, claim 34 does not require this limitation. In any event, applicant believes that claim 34 is allowable anyway.

Applicant submits a Supplemental Information Disclosure statement in conjunction with this response in order to present prior art cited in the prosecution of the parent application that it was inadvertently not cited in the prosecution of this application. Applicant respectfully requests that the Examiner consider the Supplemental IDS in conjunction with this response.

In view of the foregoing, early action allowing claims 19, 22-24, 30, and 34-36 is solicited.

In the event the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 03-1952 referencing Docket No. 204552016410.

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